

# The Agile Enterprise

## Elevating S&OP to Integrated Business Planning



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Improve performance by elevating and optimizing the S&OP process to financial outcomes. Through Integrated Business Planning, Enterprise Optimizer® improves organizational agility using fast and easy “what-if” analyses, while supplying multiple planning horizons, and automatically linking outputs to financial planning, budgeting and forecasting.



# Sales and Operations Planning

*Sales and Operations Planning (S&OP) is the primary cross-functional business planning process in many enterprises. S&OP is typically used to align the demand plan with the supply and manufacturing plan, and to make ongoing operational decisions impacting the enterprise.\**

Unfortunately, the definition of S&OP has become blurred as product lines, SKUs, and channels have multiplied in response to rapidly changing customer preferences, globalization, and greater supply chain complexity. Firms struggle to cope with multiple product plans, regional marketing and sales plans, supply plans, and financial plans. Supply Chain groups have adopted S&OP as a way to force a translation of multiple plans, expressed in different terms, into a common plan that delivers a balance between demand and supply. Therefore S&OP has become a much more operational, “supply chain centric” process. Consequently, the process misses much of its original intent – Serving as the primary business planning process that drives an enterprise. S&OP, with its supply-chain slant, has four critical shortcomings.

## **1. S&OP is not explicitly aligned with company strategy**

The process and supporting technologies do not address the links between corporate strategy, supply chain strategy, and product performance management. For example, S&OP is rarely “aware” of the need to drive additional market share for certain products or channels in an actionable manner. Doing so would require explicit translation of those objectives into promotions and unique service level targets, placing a priority on production planning.

## **2. S&OP does not naturally yield the optimal financial answer**

The key drivers of S&OP are service level, capacity utilization, and sourcing metrics. These metrics, and their targets, are driven by assumptions that, at worst, are expressed only in process terms; and at best are known only in terms of costs – not in terms of their impact on the financial goals of the enterprise. The risks associated with these assumptions are also not fully understood with regard to cash flow and impact on ROA.

## **3. The link to the financial planning process is weak or absent**

The S&OP output or “forecast” is often used to feed the financial plan. Integration between these two planning processes is ad-hoc, and almost always sequential - Resulting

in limited ability to evaluate and optimize plans to financials as they are formed. In addition, the process of translating S&OP outputs to financials is often cumbersome, error-prone, and over-reliant on outdated assumptions and standard costs.

## **4. Process agility is limited**

Most companies plan on a monthly basis with limited ability to change planning frequency for different products or product families. This approach fails to consider market dynamics; therefore, inventory and risk cannot be managed optimally.

Companies now face a unique opportunity to elevate the S&OP process to deliver significant value by becoming a key driver of **Integrated Business Planning**.

## **S&OP Meets IBP**

River Logic’s Integrated Business Planning (IBP) helps companies to achieve one-number planning through the integration of cross-functional plans. This is where all functions (product management, manufacturing, logistics and distribution, sales and marketing, finance, and HR) are effectively working from the same plan. The plan may not look identical to each function due to departmental influence, (manufacturing organizations uses units, whereas marketing/sales use revenue, and finance uses profitability and margin), but the underlying metrics that drive the different plans (product volumes, price, product costs, etc.) are shared. Additionally all participants benefit from a common plan that provides consistent targets and constraints.

River Logic’s S&OP solution incorporates strategic decisions into the S&OP process by explicitly modeling and considering cross-functional assumptions. In addition, it enables enterprises to bridge the gap between their financial planning and the more operational aspects of S&OP. The solution not only provides the full financial impact of the planning decisions, but more importantly, it incorporates full financial metrics as key drivers of the S&OP process.

\* *Where to Source Technology for Enterprise Planning, Tim Payne, Gartner*

As illustrated below, the solution aligns corporate strategy goals with the Sales & Operational Planning process on a platform which allows users to develop workflows for scenario management, course correction, and assumption validation. Additionally, the system feeds a complete financial plan into the financial planning systems. The key functional areas represented in the solution are:

- Corporate Strategy
- Executive S&OP
- Demand Planning
- Supply Planning
- Inventory Planning

Built on the revolutionary COR technology and **EO | Server 2008**, River Logic's S&OP solution incorporates activity-based costing, constraint-oriented process modeling, and comprehensive financial modeling to provide true cross-functional planning. Combined with **Microsoft PerformancePoint Server® (PPS)**, the solution supports an S&OP workflow and provides comprehensive reporting in an integrated framework.

## Key elements of the S&OP solution include:

### Financial Modeling

- Full financial reporting structure replicating the company's general ledger
- Audit-quality income, balance sheet, and cash flow statements
- Ability to represent NPV, Economic Profit, and ROA at corporate and divisional levels
- Detailed unit costs (activity-based costing) by customer, product, resource, and facility

### Process Modeling

- Detailed modeling of complex, multi-level supply chains, with ability to represent batch and continuous flows, full mass /energy balances, resources (physical and personnel) and more

### Business Scenario Analysis

- Simultaneously consider market demands, financial covenants, operational constraints (min and max ratios) both as inputs, as well as ranges of possible options

- Optimize to any financial or operational metric (net income, cash flow, inventory) or to multiple metrics

### Scenario Management

- Side-by-side comparison of multiple scenarios, including interactive dashboards which allow dynamic scenario analysis
- Variance analysis of plan vs actual and forecasts
- Support rolling planning process
- Leverage existing knowledge of Microsoft Excel, SharePoint and PPS interfaces

### Workflow and User Management

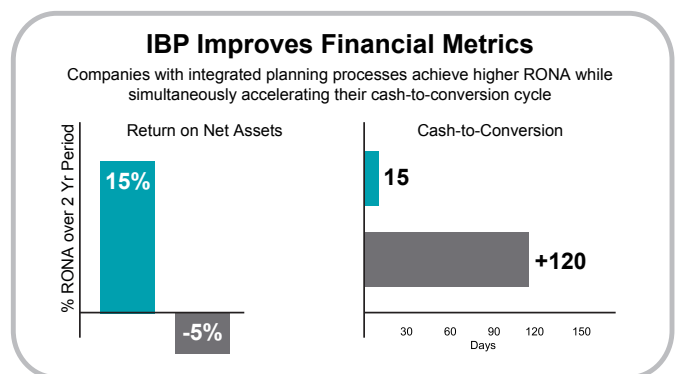
- PPS and EO provide pre-defined planning and administration roles and the ability to define work flows with permissions, audit trails, and processes using SharePoint's collaboration layer

### Reporting and Analytics

- Scorecards and alerts to deviations from performance targets and the ability to view and analyze results using Excel and SQL Server Reporting. Opportunity to expand capability using **EO | Integrated Business Scorecard™**

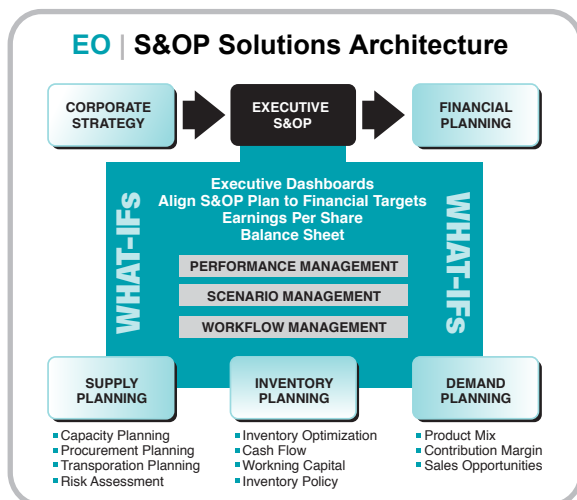
## Result/Impact

Companies augmenting their S&OP efforts with River Logic's Enterprise Optimizer® (EO) improve financial performance by evaluating and optimizing the S&OP process to financial outcomes. Through Integrated Business Planning (IBP), EO improves organizational agility through fast and easy "what-if" analyses, while supplying multiple planning horizons and automatically linking outputs directly to the financial planning, budgeting and forecasting processes.

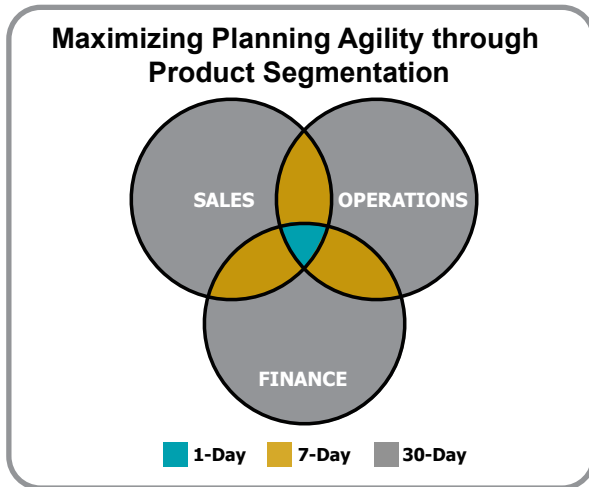


## Case in Point

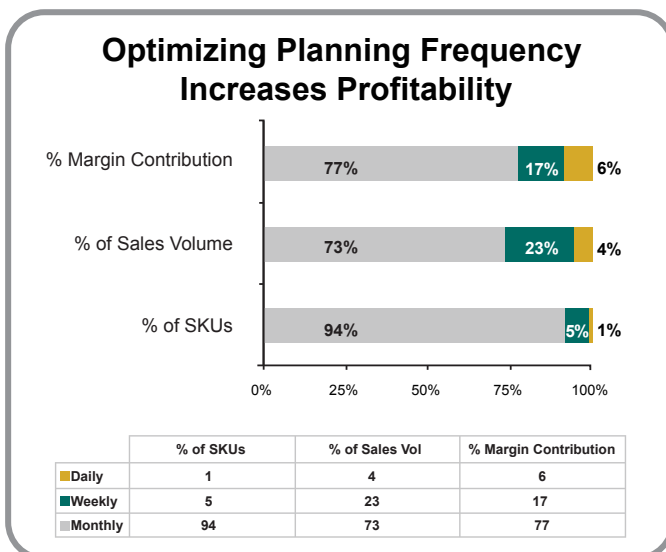
A large textile company had an S&OP planning cycle primarily driven by monthly forecasts. Each forecast was aligned with the requisite production requirements. Consequently, forecast accuracy varied widely and inventory levels were significantly higher than the industry average, particularly at the intermediate goods level.



The first step in refining their S&OP process involved understanding how the products measured up against their key financial, sales, and operational metrics. A complete enterprise model was built to represent production, supply, demand, logistical and storage constraints, and costs. This included representing more than 20 facilities, 40 processing centers, 300 machines, 8000 products, and 25,000 product-customer combinations. This analysis led to a product segmentation used to define daily, weekly, and monthly planning cycles.



This segmentation enabled the company to understand (and quantify) the relative contribution of the daily, weekly, and monthly planning products. While only 1% of the products needed to be planned on a daily basis, these products provided a disproportionate contribution margin of 6%. By planning these products more frequently the forecast accuracy was significantly improved. The increase in planning resources was offset by automating the generation of financial plans directly from the S&OP process.



As a result, the optimized planning frequency delivered significant financial benefits, including:

- Improved fill rates while reducing inventory levels and working capital requirements by more than 30%
- Reduction in inventory levels for SKUs with higher planning frequency
- Reduction in service level requirements for SKUs with lower planning frequency

## Additional Improvements through Integrated Insights

The company also used the EO model to evaluate key assumptions driving sourcing policy. In particular, a component that was sourced through third parties more than 70% of the time was investigated. Once this assumption was relaxed in the EO S&OP model, a cost savings from in-house production was identified. **This change in sourcing reduced third party purchases by 40%, putting an additional \$40 million directly to the bottom line.**

A number of other key assumptions (number of shifts per plant, need to run certain machines continuously, reprocessing of off quality products, etc.) were validated based on their financial impact and the respective marginal opportunities. While considering opportunity costs of constrained resources, a number of operational improvements were implemented, including:

- Increasing the number of shifts at a plant  
**Result: \$4 million improvement resulting from better utilization of existing resources**
- Determining cost structure suitable for reprocessing quality finished goods  
**Result: Cut costs by \$2 million annually**

Today, the company continues to improve performance using EO for scenario analyses. This ongoing evaluation has helped in determining risk from oil price variability, in terms of the impact on transportation, raw material costs, and how it will impact product mix and profitability.

Because of EO's integration, users are also able to share and test multiple scenario assumptions. By realigning the S&OP process with financial objectives, users continue to evaluate and refine their sourcing decisions, policies, procedures, and suppliers to drive corporate performance.